

A NEW SPECIES OF THE GENUS *DACTYLO- CHELIFER* (PSEUDOSCORPIONIDEA: CHELIFERIDAE) FROM JAPAN

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Synopsis

SATO, Hidebumi (Tsurumi Girls' Senior High School, Yokohama): A new species of the genus *Dactylochelifer* (Pseudoscorpionidea: Cheliferidae) from Japan. *Acta arachnol.*, **30**: 105-110 (1982).

A new species of *Dactylochelifer shinkaii* from Kanagawa Pref. is described.

Although *Dactylochelifer* is known as a cosmopolitic genus, no species of the genus has been reported from Japan. In the present paper the writer described a new species of the genus, which was collected from Tanzawa (Central Japan) under the bark of *Cryptomeria japonica*.

The writer wishes to express his hearty thanks to Prof. Dr. Kuniyasu MORIKAWA of Matsuyama Shinonome Junior College for his advice, and he is also deeply indebted to Prof. Dr. Jun-ichi AOKI of Yokohama National University for his kindness in reading the manuscript. His thanks are due to Mr. Ei-ichi SHINKAI for his assistance in collecting the material.

SUBORDER CHELIFELINEA

FAMILY CHELIFELIDAE

***Dactylochelifer shinkaii* n. sp.**

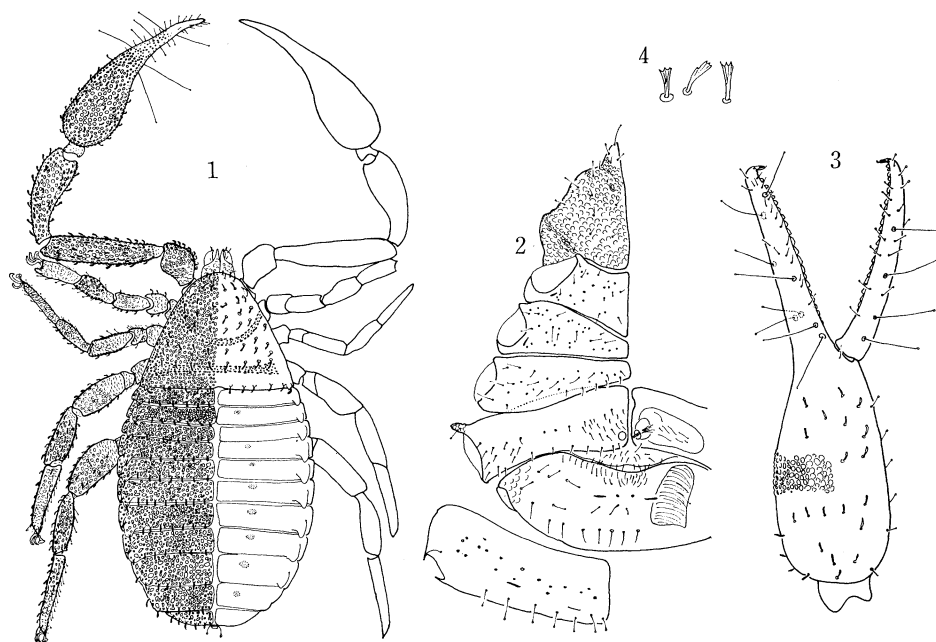
(Nokogiri-yadori-kanimushi)

(Figs. 1-11)

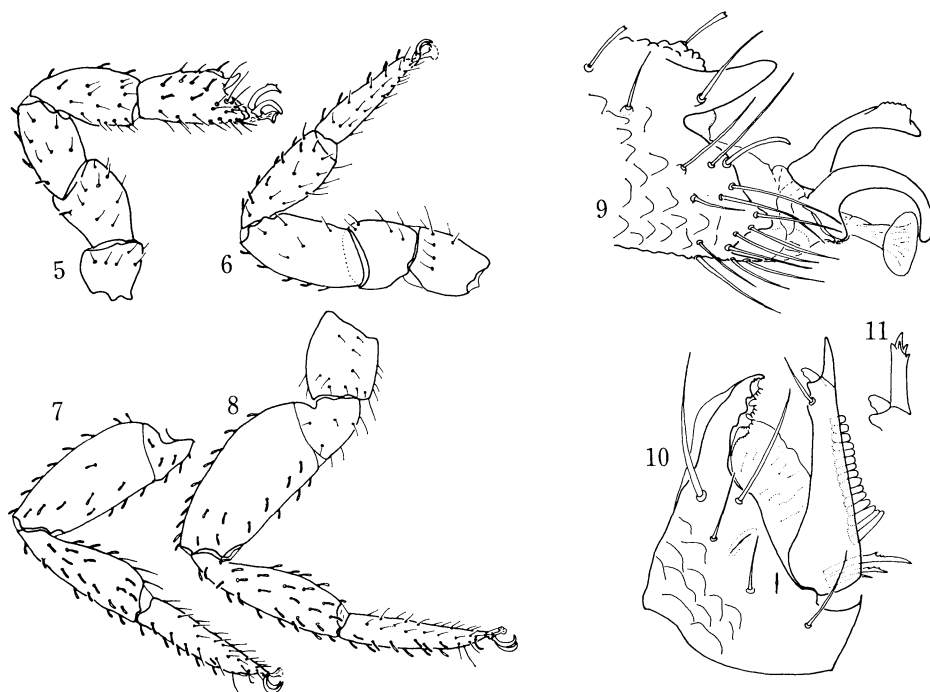
Description: Observations and measurements are based on eight individuals. Carapace, abdomen and palps brown; leg pale brown. Body length 2.4-2.7 mm.

Carapace.—Carapace triangular, somewhat shorter than broad, frontal margin rounded with two weakly developed eyes; male with well developed lateral keel. Tegument weakly granular. Two well-marked, transverse furrows, the posterior one being a little closer to the posterior carapacic margin than the median one; anterior furrow deeply grooved, distinctly procurved laterally; posterior furrow deeply grooved, nearly transverse. Carapacial chaetotaxy: 4-11, 60 to 70; carapacial setae rather broadly denticuloclavate.

Chelicera.—Palm of chelicera with five setae (*es*, *sb*, *b* and *es* arranged in a row). Dorsal median lyrifissure situated between *sb* and *b*; galeal seta not reaching tip of galea. Inner margin of fixed finger with 6 marginal teeth, the basal three being much larger than the others. Lamina exterior well developed and curved along the fixed finger. All of the serrula interior fused into a velum except the distal four plates. Galea of female slenderly conical; those of male with five short teeth distally. Serrula exterior with 15 plates. Flagellum with three blades, two distal ones long and serrate unilaterally.



Figs. 1-4. *Dactylochelifier shinkaii* sp. n. (male). 1: Dorsal view. 2: Coxal area. 3: Chela. 4: Carapacial and tergal setae.



Figs. 5-11. *Dactylochelifer shinkaii* sp. n. (male). 5: Leg I. 6: Leg II. 7: Leg III. 8: Leg IV. 9: Lateral view of first tarsus. 10: Chelicera. 11: Galea.

Coxal area.—Maxilla distinctly granulate. Setae of maxilla short and simple. Median maxillary lyrifissure loop-form. All of coxae smooth; the first to the third coxae with 10 to 20 setae, the fourth coxa with numerous short setae. Many small setae situated around the coxal sac in male. The first to the third coxae each with numerous small spots and a small lyrifissures. The forth coxa of male with a granulated lateral keel.

Pedipalp.—Pedipalp relatively stout, roughly granulate. Both of the fixed and movable finger with venom apparatus. Palpal proportions: femur 4.3 times, hand 6.2 times, as long as broad; palm a little longer than the finger. Fixed finger with eight tactile setae; *et* and *it* inserted near distal end, *ist* and *est* near center, and the other four setae near base of finger. Movable finger with four tactile setae; *st* near the mid-point and about midway between *t* and *sb*, *b* more proximal rather than middle of *sb* and base of finger. Fixed and movable fingers each with 20 to 22 marginal teeth; accessory teeth wanting. Setae of

femur and hand mostly strong and short clavate; finger with relatively long and acute setae.

Legs.—All of the legs imbricated or granulated. First tarsus of male subquadrate and with a tarsal spine. Terminal seta of tarsus clavate and curved at the tip. Claw of the tarsus of male serrate. Alorium not longer than the claws.

Abdomen.—Total of 11 segments, each of them except the last one with lateral keels; the first 3 tergites smaller than the others. Tergites and sternites divided. Tergites 4 to 11 each with a small spot. Tergal chaetotaxy (male):

$$\frac{7}{7} \cdot \frac{7}{7} \cdot \frac{6}{6} \cdot \frac{9}{9} \cdot \frac{9}{9} \cdot \frac{10}{10} \cdot \frac{9}{9} \cdot \frac{8}{8} \cdot \frac{7}{7} \cdot \frac{5}{5}.$$

Table 1. *Dactylochelifer shinkaii* n. sp. Measurements (mm) of various structures (based on 4 males and 4 females).

	Male	Female
<i>Body length</i>	2.25	2.70
<i>Carapace</i>		
Anterior breadth	0.23	0.23
Posterior breadth	1.02	0.99
Breadth between eyes	0.465	0.400
Length	0.805	0.865
Length of cuculus	0.06	0.04
<i>Chelicera</i>	0.24 × 0.11	0.29 × 0.12
Length of movable finger	0.145	0.150
Length of galea	0.03	0.05
<i>Coxal area</i>		
Maxilla	0.395 × 0.245	0.465 × 0.245
Coxa 1	0.335 × 0.080	0.300 × 0.175
Coxa 2	0.385 × 0.050	0.370 × 0.050
Coxa 3	0.390 × 0.050	0.380 × 0.055
Coxa 4	0.455 × 0.155	0.415 × 0.160
<i>Pedipalp</i>		
Total length of chela	1.33	1.37
Palm	0.590 × 0.365	0.630 × 0.390
Length of movable finger	0.690	0.695
Trochanter	0.390 × 0.230	0.415 × 0.230
Femur	0.855 × 0.200	0.840 × 0.175
Tibia	0.705 × 0.230	0.655 × 0.230

Table 2. *Dactylochelifer shinkaii* n. sp. Measurement (mm) of legs (based on 4 males and 4 females).

	Male	Female
<i>Leg 1</i>		
Trochanter	0.180×0.140	0.165×0.135
Femur 1	0.230×0.150	0.225×0.135
Femur 2	0.300×0.130	0.240×0.115
Tibia	0.300×0.120	0.325×0.088
Tarsus	0.300×0.115	0.340×0.068
<i>Leg 2</i>		
Trochanter	0.180×0.150	0.200×0.150
Femur 1	0.190×0.135	0.180×0.130
Femur 2	0.315×0.130	0.315×0.115
Tibia	0.330×0.100	0.315×0.096
Tarsus	0.315×0.080	0.320×0.080
<i>Leg 3</i>		
Trochanter	0.230×0.150	0.265×0.150
Femur 1	0.130×0.115	0.185×0.135
Femur 2	0.315×0.150	0.380×0.155
Tibia	0.345×0.115	0.340×0.115
Tarsus	0.365×0.080	0.385×0.080
<i>Leg 4</i>		
Trochanter	0.265×0.180	0.320×0.180
Femur 1	0.175×0.115	0.230×0.165
Femur 2	0.450×0.165	0.505×0.175
Tibia	0.415×0.115	0.440×0.115
Tarsus	0.425×0.080	0.465×0.085

Genital complex.—Genital area of female with about 10 small and acute setae; the area of male with scores of similar setae. Posterior operculum of male with many small setae and with a pair of lyrifissures and spots.

Measurements.—All measurements are given in Tables 1 and 2.

Type-series. HOLOTYPE (NSMT-Ad 2): ♂ Hudakake in Tanzawa, Kanagawa Ken 19790106, Eiichi SHINKAI leg., from under the bark of *Cryptomeria japonica*. PARATYPES: 3♂4♀, the same data as holotype, Hidebumi SATO leg. Holotype and one paratype are deposited in the collection of the National Science Museum, Tokyo, and the remaining paratypes in my collection.

Remarks: The new species is related to *D. latreillei* LEACH (1817) from England, but it differs from this species in the following characters: The tarsal

spine elongate in male; galea of male is simple; marginal teeth of fixed finger of chelicera is large and rounded; setae of carapace are clavate; tergites except the last one have conspicuous lateral keels. *D. shinkaii* is easily distinguishable from other Asiatic species of *Dactylochelifer* by the large tarsal spine in male.

摘 要

佐藤英文 (鶴見女子高校) : ノコギリヤドリカニムシの一新種。

ノコギリヤドリカニムシ属(和名新称) *Dactylochelifer* は汎世界的な属であるが、これまで日本からは得られていなかった。今回採集された新種ノコギリヤドリカニムシ(新称) *Dactylochelifer shinkaii* は、神奈川県丹沢山のスギ樹皮下より得られたものであり、雄第1脚の附節突起が顕著であることから他種と容易に区別される。

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